

WHAT IS CLAIMED IS:

1. A transmission signal producing apparatus for producing a signal subjected to amplitude shift modulation according to digital data, as a transmission signal for use in transmission of the digital data between node devices connected to a network, comprising:

a first signal generation circuit for outputting a first signal having a first amplitude according to a bit value "0" of the digital data and cyclically changing at a frequency in synchronism with a bit rate of the digital data;

a second signal generation circuit for outputting a second signal having a second amplitude according to a bit value "1" of the digital data and cyclically changing at a frequency in synchronism with the bit rate of the digital data; and

an output circuit for producing the transmission signal based on the first signal and the second signal,

wherein

the output circuit includes a selection circuit for selectively outputting either the first signal or the second signal according to the bit value of the digital data.

2. The transmission signal producing apparatus according to claim 1, wherein

the first signal generation circuit successively outputs the first signals,

the second signal generation circuit successively outputs the second signals, and

the selection circuit is a switch circuit for selectively connecting and disconnecting output ends of the first signal generation circuit and the second signal generation circuit.

5 3. The transmission signal producing apparatus according to claim 1, wherein

the first signal generation circuit and the second signal generation circuit generate sinusoidal waveforms which are in synchronism with each other, and

10 the output circuit outputs an output signal from the selection circuit as the transmission signal.

4. The transmission signal producing apparatus according to claim 1, wherein

15 the first signal generation circuit and the second signal generation circuit are clock generation circuits which generate rectangular waveform signals which are in synchronism with each other, and

the output circuit has a low pass filter into which an output
20 signal of the selection circuit is input, and outputs an output signal from the low pass filter as the transmission signal.